DOCUMENT-IDENTIFIER: US 6349722 B1

TITLE: Respiratory humidification system

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## BSPV:

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humidity sensing means which senses the humidity of said gases flow being supplied to said patient,

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storage means which stores said alarm times for a number of associated <u>sensed</u> humidity values, and

## BSPV:

 i) receive input of said <u>sensed humidity</u> value from said humidity sensing means,

# BSPV:

ii) obtain from said storage means the alarm time
associated with said <u>sensed</u>
humidity value,

## DEPR:

Thus, at least in the preferred form, the present invention incorporating all

or some of the above described features provides a respiratory humidification

system which enables humidity and/or temperature control of the humidified

gases to be achieved. The gases flow probed according to one embodiment of the

present invention enables accurate flow rate measurements to be made without

condensation affecting the sensor. In part this increased accuracy is also due

to the locating system which ensures correct alignment of the flow and/or

temperature probe in the gases flow. Due to the ability to accurately sense

flow rate with this flow sensor, the control systems according to the present

invention are able to provide a gases flow to the patient

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which is controlled to a required humidity. The flow rate sensor also enables "automatic" control to be achieved whereby the user is not required to constantly monitor the output of the humidifier and to alter inputs to achieve desired changes, the user is merely required to inform the humidifier of the patient's gases delivery situation and the humidifier is able to provide the required gases temperature and humidity without further user input The humidifier also displays a gases temperature value which is clinically relevant to the gases reaching the patient. In addition, the respiratory humidification according to other preferred embodiments of the present invention encompasses various safety improvements over the prior art.